



HERBALIFE – OVERCOMING THE ‘IMPOSSIBLE TRINITY’ OF FOOD POLICIES: ADVANCING A NEW APPROACH

June 2024

Farmers movements in Europe, continued high rates of inflation across the continent, obesity levels that have tripled over 40 years: the year 2024 proves to be challenging for European and national food policymakers. Food policies encompass indeed a variety of policy issues, the three most critical of these being environmental sustainability, health and price aspects. Because of the fragmentation of food value chains and their variety of stakeholders, the transition of these ‘agrifood systems’ proves to be a tough challenge to address.

There is a ‘conflict of policy objectives’ prevailing today, as if policymakers – namely the European institutions and the Member States – were driven to choose between the different angles of an ‘impossible trinity’, in which agrifood systems could be at the same time environmentally sustainable, healthy for consumers and affordable.

This conundrum has been intensifying over the past years, since Europe has established an ambitious, yet controversial framework to tackle climate change, notably through the Green Deal and the Fit for 55 package. Despite the resistance to some objectives of the Green Deal, these comprehensive texts address the right issues, as the environmental impact of the agrifood value chain (greenhouse gas emissions, water, land use, waste) is growingly significant in Europe.

Therefore, there is a need for innovative and pragmatic food policies favoring sustainable and sovereign food production. A pragmatic approach, also relying on national best practices, could help solve the three pending questions which undermine environmentally sustainable food policies: the absence of definition of a ‘sustainable meal’, the inefficiency of information and labeling policies, the dependence on foreign inputs such as fertilizers.

Such environmentally sustainable policies are bound to improve health outcomes, the healthiness and the ‘green’ aspects of diets being intrinsically linked. Unhealthy dietary patterns have been growing in Europe, raising concerns among specialists qualifying these flawed diets as a leading risk factor for disease, mortality and economic negative externalities. Dietary patterns are defined by a series of social, economic and cultural reasons. Food policies should therefore adopt a systematic approach when promoting healthy foods.

Economic considerations are a nodal point of food policies, not least since rising inflation levels at the beginning of year 2022. Even though inflation has been decelerating these past months, price remains a critical factor, and a primary criterion for food purchase, surveys and research suggest. Public policymakers should therefore envision new ways of supporting financial access to healthy and sustainable food for all: even though affordable, healthy and eco-friendly diets exist – such as Herbalife’s Formula 1, as exclusive data shows –, the perception of quality food remains strictly associated with higher prices. Various policy tools, relying on information, prices or other market mechanisms, could be instrumental to changing behaviors.

The promotion of dedicated, actionable food policies aiming at providing sustainable, affordable and healthier meals would certainly contribute to a virtuous dietary revolution in Europe.

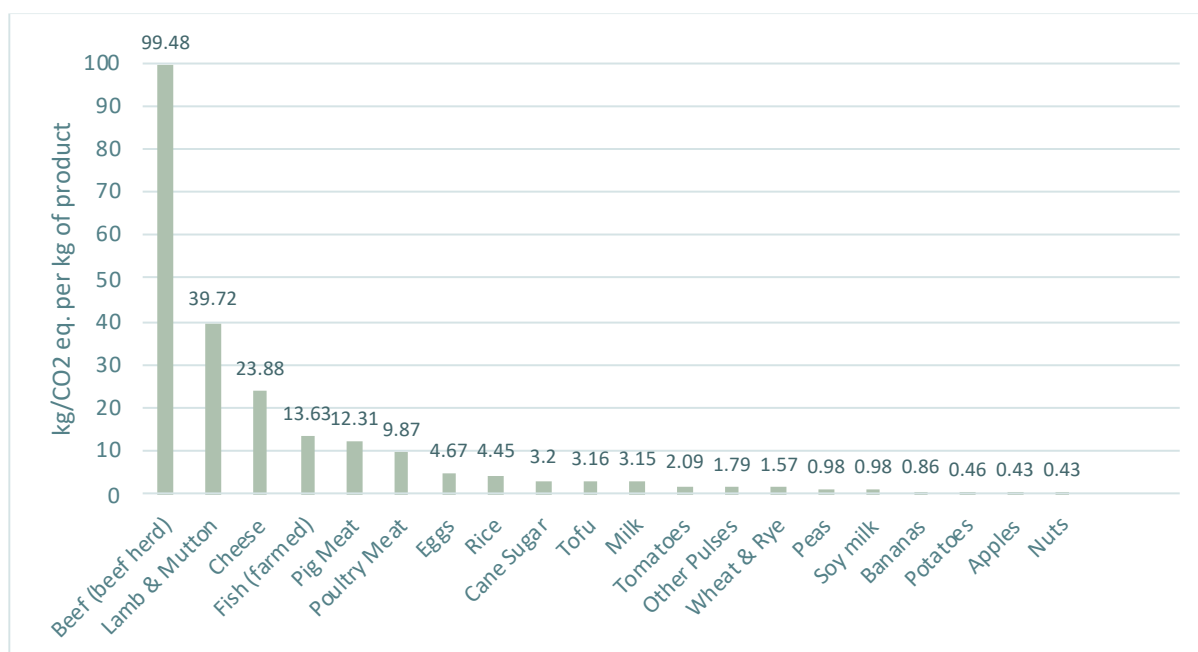
1 EU FOOD POLICY FACES AN URGENT NEED TO FOSTER MORE SUSTAINABLE, HEALTHY AND AFFORDABLE DIETS – AN APPARENT ‘IMPOSSIBLE TRINITY’

1.1 CLIMATE CHANGE REQUIRES AGRIFOOD SYSTEMS TO BECOME MORE SUSTAINABLE

Agrifood systems are a main driver of climate change and environmental degradation in Europe:

- In Europe, agrifood systems accounted for around one third of direct greenhouse gas (GHG) emissions in 2020¹. The largest carbon footprint in the agricultural sector stems from livestock, while crops like peas and other pulses emit only a fraction of this footprint (0.98 kg CO₂ equivalent per kg of peas), as depicted in the graph below;

Figure 1 Carbon equivalent emissions per kilogram of food product



Source : Poore & Nemecek (2018)

- Agrifood systems are also a main consumer of water, with approximately 24% of all water abstraction in the EU from agriculture only². With the growing unavailability of water in dry areas, the ability to produce those products that need large amounts of water will become more and more restrained. Animal-based agricultural products are particularly water intensive in this regard, as depicted in the table below.

¹ European Environmental Bureau (2024) - [Food systems](#).

² European Court of Auditors (2021) - [Sustainable water use in agriculture: CAP funds more likely to promote greater rather than more efficient water use](#).

Table 1: Water use of different food products

Product	L/kg	L/kcal	L/g of protein
Cereals	1.64	0.51	21
Pulses	4.06	1.19	19
Eggs	3.27	2.29	29
Chicken meat	4.33	3.00	34
Pig meat	5.99	2.15	57
Bovine meat	15.42	10.19	112

Source: Hoekstra & Merkonen (2012)

1.2 CURRENT MAJORITY DIETS IN THE EU HAVE DETRIMENTAL EFFECTS ON HEALTH WITH RAMPANT CONSEQUENCES ON HEALTHCARE AND SOCIAL SECURITY SYSTEMS

European eating patterns today impose a burden on people’s health and on European social security systems:

- The average intake of calories has been continuously increasing³, and overall, compared to nutritional guidelines, Europeans eat too many animal-based products, excessive amounts of sugar, salt and saturated fat and too little whole grains, vegetables, fruits and legumes and their derivatives;
- In view of this nutritional pattern, 950,000 deaths in Europe are *directly* linked to unhealthy diets annually. Unhealthy diets also foster a range of non-communicable diseases that are widespread in Europe, as depicted in the table below:

³ WHO (2022) - Once again, US and Europe way ahead on daily calorie intake.

Table 2: Diet-related negative health outcomes

Diet-related health features	Europe	Belgium	Germany	France	Italy	Poland	Sweden
<i>Overweight rate among adults</i>	53.0%	50.0%	54.0%	47.0%	46.2%	58.0%	51%
<i>Diabetes prevalence</i>	6.2%	4.6%	6.9%	4.8%	5.0%	6.1 %	4.8 %
<i>Prevalence of cardiovascular diseases (deaths per 100,000 inhabitants)</i>	351	222	356	175	288	543	273
<i>Diet-related deaths caused by cancer/year</i>	101,477	N/A	N/A	N/A	N/A	N/A	N/A

Source: Eurostat, European Commission

1.3 NUTRITIOUS AND SUSTAINABLE FOODS ARE STILL UNAFFORDABLE FOR TOO LARGE A SHARE OF EU CITIZENS

The EU is also confronted with insufficiently affordable healthy and sustainable diets, especially as inflation levels have been increasing since 2022:

- Almost one out of ten EU citizens was unable to afford a full meal with meat, fish or a vegetarian alternative every other day in 2022;
- **In addition, Europe has been suffering from ever higher food inflation rates since 2022.** Food prices accelerated to unprecedented levels in the Eurozone between March 2022 – outbreak of the Russian war in Ukraine – and March 2023, reaching 15.5% on an annual basis:
 - Three main factors explain such increases in food prices in Europe, according to recent literature: Input prices, such as those of energy, electricity and commodities (fertilizers for example), extreme weather and climate shocks, as well as unequal distribution of prices along the value chain;
 - With fragmented food value chains subject to numerous local and geopolitical shocks, high and volatile food prices are likely here to stay. Tackling them must be a political priority.

1.4 ENVIRONMENTAL SUSTAINABILITY, HEALTHINESS AND AFFORDABILITY OF FOOD SYSTEMS, HAVE PROVEN TO BE HARD TO ACHIEVE SIMULTANEOUSLY

Policy makers in Europe are aware of these challenges and have been striving to foster environmental sustainability, health and affordability all at once. Reaching the three ‘angles’ of the ‘impossible trinity’ appears to be very challenging as food systems’ products are likely to be:

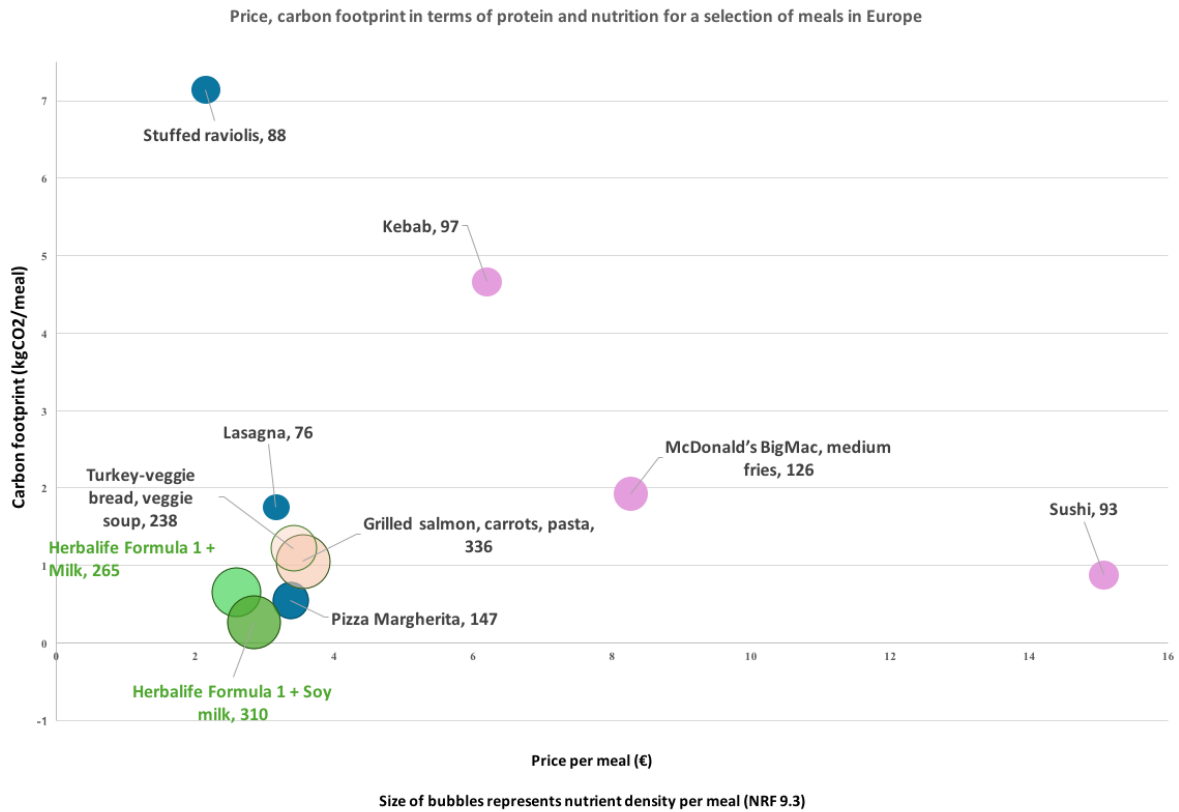
- **Environmentally sustainable and healthy, but more expensive.** Foods associated with improved health (whole grain cereals, fruit, vegetables, legumes, nuts, olive oil, and fish), except for fish, have among the lowest environmental impacts⁴. By contrast, these foods such as fruit and vegetables are associated with higher per-calorie food costs;
- **Cheap, sometimes produced locally, but not healthy.** Research suggests that healthy foods are often pricier today. Starches, fats, and sweets imply lower per-calorie food costs (energy cost, in EUR/100 kcal)⁵. As a result, the meals with empty calories are cheaper than nutrient dense foods;
- **Healthy and affordable, but not necessarily environmentally sustainable.** Meals composed of beef and vegetables, such as lasagna, or imported fishes such as salmon (see figure 1 below), prove for example to provide adequate nutrient intakes to consumers at a relatively low price, but imply higher carbon footprints than other meals.

The graph below plots the price, CO2 footprint and nutrient density of a selection of meals (take-out, pre-cooked, home-cooked) and shows that many meals insufficiently meet these three criteria. It also demonstrates that Herbalife’s products are of critical relevance in overcoming this apparent ‘impossible trinity’. They also meet current trends and expectations of consumers in favor of convenient dietary habits. Herbalife Formula 1 meal replacement outperforms all other meals in all three dimensions.

⁴ Clark, M. et al. (2019) - [Multiple health and environmental impacts of foods](#).

⁵ Nicole Darmon, Adam Drewnowski (2008). Does social class predict diet quality?, The American Journal of Clinical Nutrition, Volume 87, Issue 5, 2008.

Figure 2: CO2 emissions, price and nutrient density per meal



Source: Calculations based on the Nutrient Rich Food Index (NRF) developed by Dr. A. Drewnowski; Agribalyse data base; Ciqual data base; Herbalife's own data and LCA⁶

Note: Color coding of the bubbles represents 4 categories of meals (pink = take-out, blue = pre-cooked, orange = home-cooked, green = Herbalife meal replacements)

⁶ Average EU prices for Herbalife's products were provided by Herbalife. Prices of other meals were calculated by an average of the five largest Member States (Germany, France, Italy, Spain, Poland, representing approximately 2/3 of European population). For purchases of pre-cooked and home-cooked meals, the average of the price of a mid-level brand in one of the large local supermarkets (discounters excluded) was used (Supermarket chains were selected based on size and online availability of prices (DE: Rewe, FR: Intermarché, ES: El Corte Inglés, IT: Conad, PL: Carrefour PL)). Where a local store had to be selected, a store in the center of the country's capital city was selected. For take-out meals, the price was calculated by the average of a random choice of 5 restaurants on the country's most popular food delivery website (DE: Lieferando, FR: UberEats, IT, ES: JustEat, PL: Wolt). For Kebab in Germany and France, outside sources were used (Lieferando and Giera conseil, respectively). For McDonalds BigMac and Fries, online prices were consulted on local websites. Nutrient density was calculated based on the Nutrient Rich Food Index. Developed by Dr. A. Drewnowski, it aggregates 9 nutrients to encourage and 3 nutrients to discourage. For nutritional values, data available on the French authorities' Ciqual website was used (and McDonald's website for BigMac + Fries). Nutritional values for Herbalife's products rely on in-house data.

For carbon footprints, Agribalyse data base (developed by French ADEME) which aggregates data on the CO₂ impact of different food products, was used. Through cross-multiplication, metrics of kgCO₂/100g of protein, or kgCO₂/100kcal, were used. CO₂ emissions of Herbalife's products rely on in-house data from an internal life-cycle assessment.

2 WHILE RECOGNIZING THOSE CHALLENGES, THE EU'S CURRENT FRAMEWORK LACKS EFFICIENCY IN ACHIEVING ITS OBJECTIVES

2.1 THE EU'S RECENT LEGISLATIVE PACKAGES PROVIDE AN UNEQUIVOCAL FRAMEWORK FOR THE PROMOTION OF HEALTHY, AFFORDABLE AND ENVIRONMENTALLY SUSTAINABLE DIETS

EU primary and secondary legislation as well as policy strategies are unequivocal in the political ambition to providing nutritious and affordable meals:

- Ensuring “*that supplies reach consumers at reasonable prices*” is one the five objectives laid down in the Treaty on the Functioning of the EU, in the Common Agricultural Policy (CAP), e.g., the cornerstone of European agrifood policies (Art. 39 TFEU);
- Art. 168 TFEU sets out that the EU should promote public health, including by ‘*monitoring and efficiently addressing factors, including environmental factors, which directly or indirectly affect health*’;
- Several regulations tackle that same question. For instance, the EU Regulation on Food Information to Consumers (Regulation 1169/2011) or the EU Regulation on School Fruit, Vegetables, and Milk Scheme (Regulation 1308/2013) include various mechanisms promoting healthy production and consumption. The Farm to Fork Strategy (*see below*) is the latest example of the EU's commitment to provide healthy and sustainable diets at fair prices.

With the European Green Deal strategy, the EU is irrevocably bound to drastically reduce the environmental impact of the food system:

- The Green Deal, the transversal legislative strategy deployed to address climate change in every sector of the economy, was presented in 2020 by the European Commission. It qualifies as one of the most ambitious political initiatives of the past decades. With this strategy being translated into the European Climate Law, the EU is legally obliged to achieve a 55% reduction in net greenhouse gas (GHG) emissions by 2030 compared to 1990 levels, and reaching net zero emissions by 2050;
- Within the framework of the Green Deal, the environmental transition of the agrifood systems is not optional: they *must* contribute to emissions reduction for the EU to achieve this ambitious goal;
- To implement the Green Deal objectives in agriculture, the CAP 2023-2027 focused specifically on a greener CAP, with the goal of contributing to environmental policy, before being amended in March 2024 in the aftermath of farmers' protests;
- With the ambition to lead the agrifood sector towards reduced GHG emissions, the European Commission also presented its Farm to Fork strategy in 2020. The strategy aimed to promote sustainable food systems through more than 30 planned pieces of legislation by:
 - Promoting sustainable food production, e.g. reducing food nutrient losses by at least 50% while ensuring there is no soil deterioration;
 - Ensuring food security, by drafting a contingency plan for ensuring food supply, stimulating sustainable food processing;
 - Promoting sustainable food consumption and facilitating the shift to health and sustainable diets, while focusing on education;
 - Enabling the transition by encouraging research innovation, technology and investments, with an emphasis on new skills and models.

2.2 DESPITE THIS AMBITIOUS POLITICAL MANDATE, THE IMPLEMENTATION OF THE GREEN DEAL OBJECTIVES HAS NOT YET ACHIEVED TANGIBLE RESULTS, MOSTLY DUE TO SEVERE SOCIAL TURMOIL AND ACCUMULATED GEOPOLITICAL DISTURBANCES

The Farm to Fork Strategy is now largely considered a disappointing proposal and, by some experts, an objective failure, for a lack of political efficacy and tangible results.

- About half of the 30+ announced measures have missed an official presentation by the Commission, including the framework on sustainable systems. Some measures are still pending without decisive breakthroughs in the European legislative process, such as the regulation on new genomic techniques (NGT). Others have been officially withdrawn from the legislative train, such as the regulation on the sustainable use of pesticides (SUR);
- Specialized stakeholders have been advocating for adequate support mechanisms and incentives for farmers transitioning to more sustainable production methods⁸. There is a lasting need to reassure the farmers community that the strategy would not exacerbate inequalities nor undermine the subsistence of agricultural communities by sharply decreasing agricultural production.

The CAP is, in view of various challenges, insufficiently targeted to steer the environmental transition of agrifood production.

- More than 80% of subsidies available in the CAP are still destined for animal-based foods, although the latter supplies only 35% of EU calories and 65% of proteins⁹;
- In March 2024, the European Commission published concrete measures to answer the farmers' anger and bring forward solutions to the difficulties the latter face in their daily operations. One proposal consists in deleting the environmental conditionality from CAP subsidy payments. It also granted Member States the right to apply an exception on the "*minimum land left for fallow*" (Good Agricultural and Environmental Condition 8) requirement. These amendments reflect a severe backtrack to the green ambitions of the 2023-2027 CAP framework.

2.3 AT THE SAME TIME, ONGOING POLICY AND SOCIAL DEBATES FOCUS DISPROPORTIONALLY AND MASSIVELY ON IRRELEVANT FOOD POLICY LEVERS

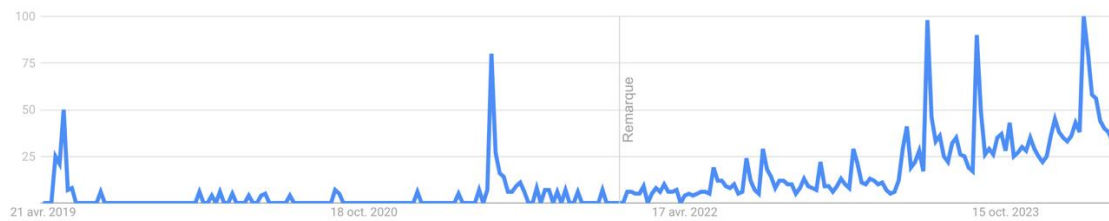
The current political debate focuses on policy levers that seem irrelevant or too ineffective to address the challenges current agrifood systems face: The growing policy debate on ultra-processed foods (UPF) is an ideal example as its place in the public debate is simply disproportional regarding the health challenges of current diets:

- Interest and concern in the concept of UPF has been continuously mounting on a global scale, as depicted in the Google Trends illustration below, as well as specifically in the EU;

⁸ For example, at the Farm2Fork: Assessing Progress and Envisioning tomorrow event organized by Competere on 10 April 2024.

⁹ Kortleve, A. et al. (2024) - [Over 80% of the European Union's Common Agricultural Policy supports emissions-intensive animal products.](#)

Figure 3: Google Trends on 'Ultra-Processed Food', 2019-2023, Global



Source: Google Trends

- The scientific debate on UPF is not settled and as a category, UPF are not clearly defined. While classification systems like NOVA¹⁰ are gaining traction as tools to classify foods according to their 'degree' of processing, they do not concretely inform public policy on nutritional adequacy, e.g. the fact for food to meet specific nutritional requirements. For example, wholegrain breakfast cereals or low sugar yoghurts might be classified as UPF, despite their good nutritional values;
- In fact, many plant-based nutritious alternatives – relying on soy protein isolate or fortificants – require greater processing and will automatically be labeled 'UPF'. These products should not be demonized as the health assessment of food should therefore rely on science-based, nutritional criteria first.

Debates on nutritional labelling have laid bare the inefficacies – from a political and a consumer perspective – of this tool to sufficiently promote healthy diets:

- Labelling policies, including front-of-package labels and nutrition facts panels (such as in Regulation 1169/2011 on the provision of food information to consumers) have been designed to provide consumers with relevant information to make healthier choices. Their impact on consumer behavior is often modest: For example, studies have found that while some consumers pay attention to nutritional labels, others may not fully understand or use the information provided¹¹;
- From a political perspective, it is noteworthy that the Nutriscore or other labels are not initiatives launched by the EC, but rather reflect societal and consumers' expectations. These initiatives are being diversely supported by Member States, and Nutriscore is still fuelling political feud, though favoured by consumers¹².

Current policies do not sufficiently consider the issue of micronutrient deficiency in the EU:

- Micronutrient deficiencies, e.g. the insufficient intake of certain micronutrients because of nutritionally sub-optimal diets, is a widespread issue concerning 2 billion people worldwide. It leads to serious health risks with long-term consequences such as anaemia or osteoporosis ;
- However, while obesity, diabetes, cancer and cardiovascular disease are deeply scrutinized, e.g., through the Europe's Beating Cancer Plan for instance, micronutrient deficiency is not even adequately monitored by national statistics¹³;

¹⁰ The NOVA score is a food classification system that was developed by researchers at the University of Sao Paulo, Brazil. It divides foods into four categories (unprocessed and minimally processed foods, processed culinary ingredients, processed foods and ultra-processed foods).

¹¹ Campos, S. et al. (2011). Nutrition labels on pre-packaged foods: A systematic review. *Public Health Nutrition*, 14(8).

¹² An extensive assessment study conducted by the French Ministry of Health indicates that in 2020, 94% of French were in favor of Nutriscores on packages. The survey also reveals that 57% of consumers changed their food habits thanks to that type of scoring. In [Ministère de la santé, Nutriscore : évaluation à trois ans, 2021](#)

¹³ The EU has started to remedy the problem of insufficient data on micronutrient deficiency only recently, with a call for under Horizon EU (HORIZON-CL6-2023-FARM2FORK-01-1009).

In this regard, the notion of nutrient density has not been sufficiently integrated into the EU public policy initiatives, as well as the affordability of these nutrient dense diets to European consumers: The call for projects under the title 'Eradicate micronutrient deficiencies in the EU' under Horizon Europe is a first step in this direction. It should then be fostered at higher political levels beyond this first research.

3 THE RIGHT POLICY LEVERS MUST BE ACTIVATED TO ACHIEVE TANGIBLE, PRAGMATIC AND WIDELY ACCEPTABLE SOLUTIONS TOWARDS SUSTAINABLE, HEALTHY AND AFFORDABLE DIETS IN EUROPE

3.1. There are science-based policy levers to encompass the coexisting issues of sustainability, health and affordability in a systemic approach

The transformation of food systems along the three dimensions of health, environmental sustainability and affordability requires to carefully consider the interactions of these dimensions.

Adequate plant-based diets emerge as a clear solution:

- A low environmental impact is generally associated with a low health risk. For example, those foods associated with improved health (like vegetables, legumes, wholegrain cereals, fruit, nuts, olive oil), have among the lowest environmental impact¹⁴. Therefore, plant-based diets appear as a clear solution to improve both;
- A diet mainly based on plants requires a pragmatic approach towards fortification and food formulation that ensures that plant-based diets meet the nutritional needs of all parts of the population;
- At the same time, plant-based diets have been shown to be widely cheaper than diets including meat and other animal products, data shows (see table 3 for instance);
 - *Herbalife has been harnessing the power of plants for over 40 years, while diversifying the sustainable sources of protein used in Herbalife's products. Today, based on raw material consumption, 81% of the protein in Herbalife's global products is plant-based, with primary ingredients being soy, pea, rice and quinoa. The number-one ingredient in many of Herbalife's products is soy protein. Soy is one of the only complete plant-based proteins since it contains all nine essential amino acids that our bodies cannot produce on their own.*

To achieve a complete transition of food systems, solutions should integrate consumers' habits should they aim to be gradually accepted and more easily implemented:

- As today's unhealthy food choices are being formed by socio-cultural, economic and political transitions that have led to a lifestyle that favors individual choices based on taste, cost, and convenience as primary influencers, these are necessary and impactful factors to be imperatively considered in the formulation of policy choices¹⁵;
- As such, demonizing UPF runs counter to the goal of a healthy, sustainable and affordable food system transition. The general public's understanding is that UPF are very likely to be unhealthy foods only, such as sodas¹⁶. Some UPF appear though to be necessary to ensure an adequate level of a range of nutrients like calcium, niacin, folate, vitamin E, such as baked beans. Such a combination of key ingredients is a guarantee to a balanced approach ensuring nutritional adequacy¹⁷.

¹⁴ Clark, M. et al. (2019) - [Multiple health and environmental impacts of foods.](#)

¹⁵ Fanzo, J. & Davis, C. (2016) - [Can Diets Be Healthy, Sustainable, and Equitable?](#)

¹⁶ For a South American study conducted in 2022, a team administered a questionnaire to panelists, querying them about their perception of ultra-processed foods (UPFs). While 92% of the respondents were able to identify sodas as UPFs, only half considered a yogurt sold in supermarkets to be a UPF. In Sarmiento-Santos J. et al. (2022), Consumers' Understanding of Ultra-Processed Foods

¹⁷ Hallinan, S. (2021). Some Ultra-Processed Foods Are Needed for Nutrient Adequate Diets: Linear Programming Analyses of the Seattle Obesity Study, *Nutrients*, 13 (11).

- *Herbalife's products are well-known and appreciated around the world, testifying of their great value for consumer acceptability:*
 - *Herbalife offers 2,000 products globally;*
 - *Over 1.8 billion protein shake servings sold worldwide (2022);*
 - *5 million protein shakes consumed daily worldwide (2022);*
 - *82 million canisters of protein shakes sold worldwide (2022).*

A holistic and pragmatic approach is crucial to make plant-based diets a relevant policy option as well as a convenient, healthy and affordable choice for consumers in the EU:

- **Increasing nutrient density through food fortification** is an essential policy tool that must be urgently strengthened, especially in the context of a shift toward plant-based diets¹⁸;
 - Food fortification is the practice of adding micronutrients (e.g., vitamins, minerals) in food items with the purpose of improving nutritional quality¹⁹;
 - According to the WHO, food fortification prevents, reduces and controls micronutrient deficiencies, and other diet-related non-communicable diseases (NCDs). It can also play a key role in achieving the transition towards sustainable food because they make nutrient-dense food affordable to consumers;
 - Food fortification is recommended as an evidence-based policy tool by the WHO. Still, EU Regulation 1925/2006 only addresses the issue of vitamins, minerals and other additive substances to food, not encouraging them actively;
 - *Herbalife's science-backed products are designed to provide consumers with a plant-based meal covering all the essential nutrients necessary for a healthy lifestyle. Taking the example of Herbalife's Formula 1, one meal shake provides 16-18g of proteins, 12 vitamins and 10 minerals, as well as the sufficient contribution of amino acids. Regarding the Nutrient Rich Food Index (NRF 9.3), which aggregates 9 nutrients to encourage and 3 nutrients to discourage, no other convenient full meal scores as high as Herbalife's Formula 1*
 - Complementing fortification, concrete supplementation of necessary micronutrients is an essential tool for the EU's Health Strategy. The use of food supplements aligns with the EU's preventive healthcare approach laid down in the Strategy, which emphasizes the importance of proactive measures over reactive treatments. By ensuring adequate micronutrient intake, food supplements can reduce the incidence of chronic diseases and contribute to the EU's goal of reducing health disparities among its population by standardizing the availability and use of food supplements.
- **Tax and subsidy policies are a powerful tool to make healthy and sustainable choices easier and more accessible for consumers;**
 - Price is an essential determinant of food choices, especially for populations with the lowest incomes²⁰. Lack of affordability is one of the main barriers to the adoption of sustainable diets as, on average, healthy and sustainable proves to be more expensive. Still, when dietary patterns primarily center on a single or a few isolated nutrients, the cost of the highest-rated (healthiest) category of diets meeting these criteria do not show a significant difference from the lowest-rated (least healthy) category of diets²¹;

¹⁸ Troesch, B. et al. (2017) 'Nutrient Density: An Important Concept to Ensure Food and Nutrition Security in Modern Societies', Sustainable Nutrition in a Changing World.

¹⁹ WHO (2023) - [Food fortification](#).

²⁰ Nicole Darmon and Adam Drewnowski, 'Contribution of Food Prices and Diet Cost to Socioeconomic Disparities in Diet Quality and Health: A Systematic Review and Analysis' (2015) 73 Nutrition Reviews 643.

²¹ See for instance Steyn NP, Nel JH, Nantel G, Kennedy G, Labadarios D. Food variety and dietary diversity scores in children: are they good indicators of dietary adequacy? Public Health Nutr. 2006 Aug;9(5):644-50. doi: 10.1079/phn2005912. PMID: 16923296.

- The tax system also offers the potential to lower the price of sustainable foods. The value-added tax (VAT) framework, which is harmonized at the EU level, could be used for such a purpose²². Along with the general VAT rate (of 15% minimum), reduced rates may be applied on certain categories of goods, the lowest one ranging from 0 to 5%. EU Member States could use this tool to lower the tax burden on sustainable productions, starting with fresh fruit and vegetables;
- Modifying VAT rates to reduce the cost of producing sustainable (e.g., plant-based) and healthy (e.g., nutrient dense) products, as well as enlarging the use of the food vouchers parts of employment benefits, could stimulate demand and therefore strengthen the market for those products²³.
- **Information and education policies** should focus on **improving knowledge on nutrient density** to truly **empower consumers to better navigate between food products**. Such an approach is adequate, in the event of limited public spending, to make food choices healthier and more sustainable;
 - *Herbalife products are distributed via direct selling, i.e. a method of selling goods or services directly to a consumer, through direct personal contact without the need for permanent retail premises. Customers receive personalized one-on-one coaching to commit to a healthier lifestyle by the trained independent distributors. Herbalife's sellers develop tailored plans for customers to meet or exceed their personal nutrition, weight-management and fitness goals, and provide continuous support as well as community encouragement.*
- **Financial support for research and development** is key to advance knowledge, policy evaluation and the innovation of products that might help overcome the 'impossible trinity' of policy objectives:
 - Rigorous monitoring of certain diet-related outcomes, e.g., micronutrient deficiency is necessary to assess both the nutritional adequacy of peoples' diets, as well as negative health outcomes;
 - Support for the development of alternative protein-based food production could contribute to a healthy and affordable transition of agriculture. For example, research on improving protein quality through combinations of appropriately processed mixtures of plant proteins (cereals, nuts and pulses) that supply protein of similar biological values to meat, is necessary.
 - *Herbalife's science-backed products are developed through a rigorous scientific process at different instances:*
 - *More than 300 scientists and 50 PhDs work on Herbalife's products;*
 - *Herbalife has 19 laboratories ensuring nutritional adequacy, safety and taste of Herbalife's products;*
 - *The Herbalife Nutrition Institute encourages and supports research and education on the relationship between good health, balanced nutrition and a healthy active lifestyle;*
 - *Herbalife is engaged in several partnerships with European universities in Europe. Herbalife also participates in EU-funded research projects such as the INCREASE and SMART protein projects. The INCREASE (Intelligent Collections of Food Legumes Genetic Resources for European Agrofood Systems) project (EUR 7 million funding, duration of 6 years) aims to promote biodiversity*

²² Council of the EU (2006) - [On the common system of value added tax](#)

²³ Thow, A. et al. (2014). A systematic review of the effectiveness of food taxes and subsidies to improve diets: understanding the recent evidence, *Nutrition reviews* 72(8).

through better managing and using genetic resources on chickpea, lentil, lupin and common bean.

3.2. Most stakeholders in the agrifood sector in Europe want to contribute to a healthy and sustainable model, should the norms, the economic model and the consumers incentivize them to do so

Overcoming the ‘impossible trinity’ is only possible if committed private companies and consumers are onboard. Even though policy makers can fuel virtuous food production by setting up subsidized mechanisms or targeted regulations, bottom-up, market-based solutions are inevitable.

The EU Code of Conduct for Responsible Food Business and Marketing Practices²⁴ represents a key milestone within the EU Farm to Fork strategy, delineating shared goals and suggested steps for stakeholders along the food supply chain to voluntarily adopt, endorse, and actively participate in.

- *Herbalife has signed the Code and commits to several pledges within this framework for its EU work:*
 - *Healthy, balanced and sustainable diets. Herbalife aims to support consumers to shift their consumption habits towards more sustainable diets, particularly towards more plant-based products;*
 - *A climate neutral food chain in Europe by 2050. Herbalife aims to achieve net zero emissions in all factories, warehouses and offices by 2050 and plans to develop interim science-based targets as well as including scope 3 emissions once the GHG accounting is completed;*
 - *An optimized circular and resource-efficient food chain in Europe. Herbalife aims to achieve 100% responsibly sourced shipper boxes and 100% responsibly sourced paper-based packaging. Herbalife’s business has always been to empower consumers in a healthy and sustainable lifestyle that is affordable and convenient to everyone, as depicted in the table below.*

²⁴ [EU Code of Conduct for Responsible Food Business and Marketing Practices](#)

Table 3: Summary of CO2 footprint, nutrient density and price per meal

Meal	Price per meal (EUR)	NRF per meal	CO2 per meal (kg)	CO2 per 100g of protein (kg)
<i>Herbalife Formula 1 made with semi-skimmed milk</i>	2.59	265.00	0.65	3.61
<i>Herbalife Formula 1 made with soy milk</i>	2.84	310.10	0.27	1.69
<i>Grilled salmon, carrots, pasta</i>	3.55	335.62	1.05	3.27
<i>Turkey-veggie bread, veggie soup</i>	3.41	237.50	1.22	2.83
<i>Pizza Margherita</i>	3.37	147.00	0.55	1.83
<i>Kebab</i>	6.19	97.00	4.66	7.77
<i>Sushi</i>	15.07	93.00	0.88	3.66
<i>McDonald's BigMac, medium fries</i>	8.26	126.00	1.93	6.48
<i>Lasagna</i>	3.16	76.00	1.75	8.03
<i>Stuffed ravioli</i>	2.15	88.00	1.12	4.54

Source: Calculations based on the Nutrient Rich Food Index (NRF) developed by Dr. A. Drewnowski; Agribalyse data base; Ciqual data base; USDA; Herbalife's own data and LCA²⁵

²⁵ Average EU prices for Herbalife's products were provided by Herbalife. Prices of other meals were calculated by an average of the five largest Member States (Germany, France, Italy, Spain, Poland, representing approximately 2/3 of European population). For purchases of pre-cooked and home-cooked meals, the average of the price of a mid-level brand in one of the large local supermarkets (discounters excluded) was used (Supermarket chains were selected based on size and online availability of prices (DE: Rewe, FR: Intermarché, ES: El Corte Inglés, IT: Conad, PL: Carrefour PL)). Where a local store had to be selected, a store in the center of the country's capital city was selected. For take-out meals, the price was calculated by the average of a random choice of 5 restaurants on the country's most popular food delivery website (DE: Lieferando, FR: UberEats, IT, ES: JustEat, PL: Wolt). For Kebab in Germany and France, outside sources were used (Lieferando and Giera conseil, respectively). For McDonalds BigMac and Fries, online prices were consulted on local websites.

Nutrient density was calculated based on the Nutrient Rich Food Index. Developed by Dr. A. Drewnowski, it aggregates 9 nutrients to encourage and 3 nutrients to discourage. For nutritional values, data available on the French authorities' Ciqual website was used (and McDonald's website and USDA data base for BigMac + Fries). Nutritional values for Herbalife's products rely on in-house data.

4 CONCLUSION

A new approach in EU food policies is necessary to overcome the ‘impossible trinity’ that this report has analysed previously. This new approach should be:

- Systematic in its scope, e.g. always envisioning the three dimensions of food policies – environmental sustainability, health and prices – combined;
- Mixed in its policy recommendations, e.g. promoting different policy tools.

The systematic approach implies improving the information available to consumers. It is indeed necessary that Europeans know more and better about the environmental dimension of their meals (through the Life Cycle Analyses for instance), their nutritional adequacy (through the NRF indices), and their ‘nutritional value for money’. In that regard, open data, circulation of information are useful, so that consumers and policymakers focus less on secondary issues, such as the degree of food processing or the face prices of meals - unrelated to the underlying intakes.

This systematic approach is also a way to overcome ‘false solutions’ and incomplete answers: Greenhouse Gas Emission (GHG) are not the only criterion to assess the environmental sustainability of food, while nutritional adequacy must be adapted to populations depending on their age and living conditions.

This essential stance should be a new ‘policy-mix’ with:

- A clear support to R&D, with the firm objective that funding innovative food must be a useful step towards a ‘dietary revolution’ in Europe. By promoting competition and innovation within the food industry, market-based approaches can also stimulate the development of affordable alternatives to current flawed or unhealthy diets;
- Regulations, which are necessary to guide for example agricultural practices towards greater resilience to climate change, and to reduce the environmental impact of agrifood systems;
- Market mechanisms, which offer proven ways to improve the affordability and accessibility of healthy and sustainable food options;
- Targeted subsidies and financial incentives to encourage virtuous behaviours.

Embracing such a determined path, the EU can set a course toward a future where nutritious, environmentally sustainable food is accessible to all.

For carbon footprints, Agribalyse data base (developed by French ADEME) which aggregates data on the CO₂ impact of different food products, was used. Through cross-multiplication, kgCO₂/100g of protein or kgCO₂/100kcal was used. CO₂ emissions of Herbalife’s products rely on in-house data from an internal life-cycle assessment.